

## ABSTRACT

An electrochemical microsensor package comprises a substrate matrix having  
5 a upper non-conductive layer and an adjacent lower non-conductive layer with a  
conductive trace or pad extending over an area therebetween. The conductive pad  
has integral therewith a projecting contact button that projects through and below  
the second non-conductive for making contact with external electrical contacts. A  
sensor electrode is positioned on the surface of the conductive pad toward the upper  
10 non-conductive layer and in electrical contact therewith. A well extends through the  
upper non-conductive layer to the upper surface of the electrode. The microsensor  
packages may be produced by electrodeposition of the conductive pad onto a  
conducting mandrel having depressions to form the contact button.

The microsensor package is fabricated into a microsensor by appropriate  
15 adaptation of the well of the microsensor package including applying an appropriate  
oxide or other layer over the electrode, introduction of an electrolyte or other  
sensing chemicals into the well and or applying a permeable or impermeable  
membrane over the top of the well.